



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,758	11/17/2005	Gregory L. Branch	110120.402	1471
31740	7590	03/05/2007		
THOMAS LOOP P.O. BOX 21466 SEATTLE, WA 98111			EXAMINER KUHN, ALLAN R	
			ART UNIT	PAPER NUMBER
			1732	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/05/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/557,758

Applicant(s)

BRANCH ET AL.

Examiner

Allan Kuhns

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,5-21,23-26 and 28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 2,3,5-21,23-26 and 28 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

Art Unit: 1732

1.Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The aspect in claim 26 (depending from claim 15) that an “unfoamed” article is formed by operations performed on from about 5% to about 100% of “previously foamed thermoplastic material” lacks support in the disclosure as filed.

2.Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Undue experimentation would be required of one of ordinary skill in the art in order to produce an “unfoamed” article by performing operations on from about 5% to about 100% of “previously foamed thermoplastic material” (as required by independent claim 15) since the disclosure appears to address the forming of foamed articles which may have unfoamed skins.

3.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1732

4. Claims 12, 14-21, 24, 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. (5,684,055) in view of Grancio et al. (4,386,188) as set forth in the rejection of claims 12, 15-21, 25 and 28 in the previous Office action and further in view of Rubens et al. (4,693,856). Rubens et al. disclose a process of forming foam including a steps where gas is infused into foam particles. Given that Rubens et al. disclose at column 3, lines 26-28 the use of scrap foam as raw material, it would have been obvious to one of ordinary skill in the art to use scrap solid state foam in the process of Kumar et al. in order to conserve raw material and at the same time to reduce waste. While claim 24 essentially describes an intended use for the article molded, it is noted that it is well known to form cups having dimensions, as in claim 24 and such would have been obvious to one of ordinary skill in the art in order to provide an insulated beverage container.

5. Claims 2, 5-7, 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. in view of Grancio et al. and Rubens et al. as applied to claim 12, 14-21, 24, 25 and 28 above, and further in view of Lake (4,304,747) as set forth in the previous Office action.

6. Claims 3, 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. in view of Grancio et al., Rubens et al. and Lake as applied to claims 2, 5-7, 9-11 and 13 above, and further in view of Kumar (5,223,545) as set forth in the previous Office action.

Art Unit: 1732

7. Applicants' arguments filed November 9, 2006 have been fully considered but they are not persuasive. Applicants argue that the examiner's reasoning (that the step of foaming in Kumar et al. occurs before the impregnated plasticizing gas falls below 0.5% by weight of the plasticized thermoplastic material) is incorrect because the reporting of the specific gravity value of foamed PET (0.3) versus that of unfoamed PET (1.3) does not in any way teach or suggest that the step of forming must occur before the plasticizing gas concentration falls below about 0.5% by weight. This is not persuasive because it is submitted that even the finished product (at a specific gravity of 0.3) would contain more than 0.5% of some gas, and there is no evidence on the record to suggest that in the process of Kumar et al. almost all of the gas is desorbed, followed by some infusion or replacement by air to create the resultant article having 0.3 specific gravity.

In support of the position set forth immediately above, Applicants also note a passage of Kumar et al. at column 5, lines 20-24. But this appears to support the examiner's position because it states that the gas only "begins to leave" the polymer sheet. Applicants further argue that over time most all of the plasticizing gas dissipates out of the polymer, and it is replaced by air. This is not persuasive because it is the examiner's position that the air moving into the foam is occupying cells formed by plasticizing gas, such that the step of forming would have inherently occurred while the concentration of plasticizing gas met the limitation of claim 15.

Applicants' arguments with regard to Grancio et al. are noted by the examiner, but the teachings of the Grancio et al. reference have now been supplemented by the

Art Unit: 1732

teachings of Ruben et al. With regard to independent claims other than claim 15, it is noted by the examiner that these other independent claims do not require a forming step prior to the decrease in plasticizing gas to below a specified level.

Applicants' comments concerning a review of claim 26, as it depends from claim 15, are also noted by the examiner, but it is the examiner's position that claim 26, as it depends from claim 15, (1) is not supported by the disclosure as filed, and (2) is not enabled.

8.Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

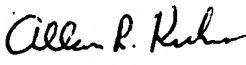
9.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-

Art Unit: 1732

1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ALLAN R. KUHNS  
PRIMARY EXAMINER AU 1732  
3-1-07